

3/29/04

Atty Dkt.: OKI-286 D1

IN THE CLAIMS:

Please cancel claims 9-15. Please also add new claims 16-23 as shown in the complete list of claims that follows:

1. (original) A semiconductor package, comprising:  
an electrically conductive member having a spherical terminal;  
a semiconductor chip which is electrically connected to said electrically conductive members; and  
a sealing member for sealing said electrically conductive members and said semiconductor chip therein;  
wherein a part of said spherical terminal is exposed from said sealing member, and said spherical terminal is electrically connected to said electrically conductive member via a protrusion formed on said electrically conductive member.
2. (original) A semiconductor package according to claim 1, wherein the electrically conductive members are leads of a lead frame.
3. (original) A semiconductor package according to claim 2, wherein the protrusion has an extremity forming an acute angle.
4. (original) A semiconductor package according to claim 3, wherein the protrusion has a height in size equivalent to about 10 to 50% of the diameter of the spherical terminal.
5. (original) A semiconductor package according to claim 4, wherein the protrusion is

caused to pierce the spherical terminal when a press-down force acts between the spherical terminal and the leads.

6. (original) A semiconductor package according to claim 2, wherein the protrusion has an extremity provided with a rough face.

7. (original) A semiconductor package according to claim 6, wherein the protrusion is made up of a plated face.

8. (original) A semiconductor package according to claim 7, wherein the protrusion is connected to the spherical terminal when a press-down force acts between the spherical terminal and the leads.

Claim 9-15 (cancelled).

16. (new) A semiconductor package for a semiconductor chip, comprising:

a lead;

means for connecting the lead to the semiconductor chip;

a solder ball connected to the lead; and

an injection-molded body in which the semiconductor chip and at least a portion of the lead are embedded, the body having a top portion and a bottom portion, the solder ball protruding through the bottom portion of the body,

wherein the top portion of the body has a recess directly above the solder ball, the recess exposing the lead.

17. (new) The semiconductor package of claim 16, wherein the lead has a protrusion that extends into the solder ball.

18. (new) The semiconductor package of claim 16, wherein the lead has a locally roughened region that engages the solder ball.

19. (new) The semiconductor package of claim 16, wherein the lead has a thickened region that engages the solder ball.

20. (new) The semiconductor package of claim 19, wherein thickened region is a plated region.

*Rule 126*  
~~21~~ 22. (new) A semiconductor package for a semiconductor chip, comprising:

a lead having a protruding spike;

means for connecting the lead to the semiconductor chip;

a solder ball connected to the lead, with the spike extending into the solder ball; and

an injection-molded body in which the semiconductor chip and at least a portion of

the lead are embedded.

~~22~~ <sup>21</sup> 23. (new) The semiconductor package of claim ~~22~~, wherein the body has a recess directly above the solder ball, the recess exposing the lead.